

REMARKS

Claims 4-19 are pending in this application. Claim 8-19 have been allowed. Claim 4 has been amended to more clearly point out and distinctly claim that which Applicants regard as the invention. It is submitted that no new matter has been added.

Claim Rejections – 35 U.S.C. § 102

The Examiner has rejected claims 4-7 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,009,056 (Araki et al.). Applicants respectfully traverse the rejection.

Araki et al. is directed to reducing the time that it takes to read data from a newly selected track of an optical disk.

The data on the disk from which Araki et al. reads data is recorded at a constant surface density (col. 4, line 41). In order that the data be read from each track at the same rate, the rotational speed of the disk is changed in accordance with the radius of the track such that the linear speed of the disk rotation is fixed (col. 4, line 46). Consequently, under stable conditions (ordinary operation), the clock C4, used to read the data from the disk may be at a fixed frequency derived from the fixed master clock C5 (Fig. 2, col.5, lines 12-13).

When moving the optical head from one track to another (long jump), the rotational speed of the disk can not be instantly changed from one speed to another due to the rotational inertia of the spindle motor. Further, as described by Araki et al., when moving the head from one track to another, the optical head is correctly positioned at the new track before the rotational speed of the disk is stable at the new speed. Thus, even though the head is correctly positioned at the new track, the data can not be read using the fixed master clock because the rate of the data being read from the disk is not the same frequency as the frequency of fixed master clock

Araki et al. solves the above problem by switching the reference signal for reading the data from the fixed master clock C3 to a variable reference clock C2 output by the VCO 208 whose frequency is related to the changing rotational speed of the spindle motor (col. 6, lines 5-14, col. 6, lines 55-58) during the interval from when the long jump is completed until the

frequencies of the clocks C2 and C3 become equal to each other (col. 6, lines 49- 65). Consequently data may be read from the new track at an earlier time than would have been the case if data were read only with the use of the fixed master clock C3.

Amended claim 4 recites, *inter alia*, "An optical disk device ...comprising ... a variable clock section for being operable to generate a plurality of clock signals of predetermined different frequencies, wherein the optical disk device performs recording and reproducing at a plurality of predetermined different speeds and when one speed is selected from the plurality of different speeds, the variable clock output section outputs one which is selected from the plurality of clock signals and corresponds to the selected speed."

An embodiment of the present invention operates at different record/reproduce speeds, i.e. 1X, 8X and 16X (see paragraph [0071] stating at page 30). The record/reproduce speed of the disk device is determined by selecting one of a plurality of predetermined speeds which causes one of a plurality of clock signals, each of which having a different frequency and corresponding to one of the selected speeds, to be output to the control section of the disk drive.

The Examiner, in rejecting claim 4, appears to be equating the VCO 208 with the claimed variable clock section. Applicants submit that the VCO 208 is not a variable clock output section which generates a plurality of clock signals at predetermined different frequencies as recited in amended claim 4. As described by Araki et al., the VCO 208 generates a variable frequency which is used only during the "access operation" interval (see for example Fig. 2 which shows the VCO output being disconnected during "ordinary operation"). During this interval, the frequency of the VCO is based on the changing and unknown speed of the spindle motor, which is changing in a continuous manner as it approaches the target speed. Although the frequency of the VCO is described as changing in a step wise manner as it approaches the frequency of the master clock, the frequency of the VCO at each step is not, and can not be, predetermined, simply because speed of the spindle motor, at each moment in time as it approaches the target value can not be predicted.

Applicants submit that the VCO 208 described by Araki et al. performs an entirely different function than does the claimed variable clock output section and performs its function

in an entirely different way. More specifically, the output frequencies of VCO 208 are not predetermined but rather are determined by the speed of the spindle motor during the access operation which can not be predetermined.

By not teaching a variable clock output section that generates a plurality of predetermined different frequencies, Araki et al. does not teach all the elements of amended claim 4. Accordingly, Applicants respectfully request reconsideration and withdrawal of the §102 rejection of claim 4.

Further, it is respectfully submitted that since claim 4 has been shown to be allowable, claims 5-7 dependent on claim 4 are allowable, at least by their dependency. Accordingly, for all the above reasons, Applicants respectfully request reconsideration and withdrawal of the § 102 rejection of claims 5-7.

Conclusion


Insofar as the Examiner's objections and rejections have been fully addressed, the instant application, including claims 4-19 is in condition for allowance and Notice of Allowability of claims 4-19 is therefore earnestly solicited.

Respectfully submitted,

TAKEHARU YAMAMOTO ET AL.

January 31, 2008
(Date)

By



LOUIS SICKLES II
Registration No. 45,803
PANITCH SCHWARZE BELISARIO & NADEL LLP
One Commerce Square
2005 Market Street, Suite 2200
Philadelphia, PA 19103-7013
Telephone: 215-965-1330
Direct Dial: 215-965-1294
Facsimile: 215-965-1331
E-Mail: lsickles@panitchlaw.com

LS/msm